(b) REMARKS

The claims are 1-13 with claim 1 being the sole independent claim. Reconsideration of the claims is expressly requested in view of the arguments presented hereafter.

The Examiner rejected claims 1-13 as obvious over Iida '500 in view of Titanium Kogyo, JP '730, Kawakami '429 and Kanbayashi '016. The Examiner alleges Iida teaches a toner where titanium moieties with similar intensity ratios are employed. The Examiner admits Iida does not teach the endothermic peak or a combination of silica particles containing a titanium element. The secondary references are said to teach silica particles containing a titanium element and toner compositions with the same endothermic peak. From this, the Examiner believes it would have been obvious to combine the above teachings to achieve the present invention. The grounds of rejection are respectfully traversed.

Prior to addressing the grounds of rejection, Applicants wish to briefly review certain key features and advantages of the present claimed invention.

In the present invention, the intensity ratio of titanium compound-containing silica particles in X-ray diffraction is specified to satisfy both ranges of $0.7 \leq Ia1/Ib1 \leq 2.0$ and $0.7 \leq Ia2/Ib2 \leq 2.0$, respectively. An important purpose for specifying the intensity ratio to be in the above ranges is to provide the presence of a titanium compound in the silica particles which is non-crystalline. These ranges clearly define a titanium compound in the silica particle which does not have any crystalline form specific to titanium oxide (specification page 10, lines 16-21). The reason for providing that the form of titanium compound in the silica particle is non-crystalline is described hereafter.

If the titanium compound in the silica particle has a crystalline form of titanium oxide, then adverse effects specific to a crystalline titanium oxide, such as an increase in positive charge of the silica particle and an increase in difficulty in controlling distribution of the silica particles due to decreasing adhesion between the titanium compound exposed on the surface of the silica particle and the surface treating agent, can occur and affect crucial characteristics of the toner (specification page 11, lines 16-27).

An object of the present invention is to provide a toner having enhanced characteristics by specifying an intensity ratio in the above ranges in X-ray diffraction, thereby suppressing the adverse effects specific to a crystalline form of titanium oxide (specification page 10, line 22 to page 11, line 15).

On the other hand, Iida '500 specifies a range of intensity ratio of hydrophobic fine titanium oxide particles in X-ray diffraction of $5.0 \leq Ia/Ib \leq 12.0$ within $2\theta=20.0\text{-}40.0$ deg to adjust fluidity and abrasive properties thereof to the toner. Moreover, Iida teaches when the hydrophobic fine titanium oxide particles are non-crystalline, such titanium oxide particles have a low probability of imparting desired abrasive properties to a toner. If abrasive properties are not imparted, then it is said that undesired low performance in abrading a photosensitive member surface to remove deposits on the photosensitive member is obtained (Iida ' 500, column 5, lines 50-59). Therefore, Iida '500 teaches using titanium oxide particles which are crystalline and raise the very problems Applicants' invention solves. Therefore, Iida teaches directly away from the present claimed invention.

Again, it is an object of the present invention is to specify an intensity ratio in X-ray diffraction to ensure non-crystallinity of the titanium compound. To the contrary, Iida specifies a different intensity ratio to ensure crystallinity.

Furthermore, Iida does not teach a key feature of the present invention; that is, to provide a toner having excellent characteristics one should specify the claimed intensity ratio ranges in X-ray diffraction to avoid the adverse effects specific to a crystalline form of titanium oxide. In contrast to the present invention, Iida teaches that a titanium compound having a non-crystalline form can adversely affect properties of toner.

Clearly, to avoid adverse effects specific to crystalline titanium oxide, and to control the charging property of the silica particle to provide excellent characteristics for the toner, the present claimed intensity ratios are important. This is further evident from the disclosure of silica particles in Table 2 on specification 49 and the results of Comparative Examples 1-4 in Table 6 on specification page 65. In Table 2, Examples 1-12 show both intensity ranges to be within $6.7 \leq Ia/Ib \leq 2.0$. Examples 13, 14 and 16 show particles with values within one range and beyond the other range, while Example 15 has values beyond both intensity ranges. In Table 6 on page 65, the results for Comparative Examples 1-4, which correspond to Examples 13-16, show unsatisfactory performance at the conditions tested. Comparative Examples 1-4 correspond in Table 6 to Examples 1-4 at the bottom of the Table.

These unexpectedly superior results rebut any possible presumption of obviousness argued by the Examiner.

Accordingly, Iida '500 teaches away from the present invention by providing intensity ratios to provide crystalline titanium compounds to a toner. The defects of Iida are not remedied by the secondary references.

Neither Titanium Kogyo JP '730, Kawakami '429 nor Kanbayashi '016 disclose or suggest any intensity ratio of titanium compound-containing silica particle in X-ray diffraction.

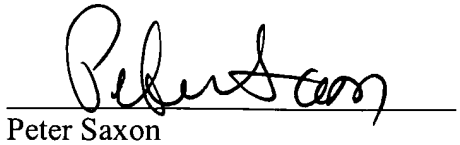
Therefore, the present invention is not prima facie obvious to one of ordinary skill in the art because even if the documents cited above were combined, the range of intensity ratio of titanium compound-containing silica particle, and thus, excellent characteristics of toner, can not be derived therefrom. Further, the unexpectedly superior results clearly rebut any possible presumption of obviousness.

Accordingly, it is submitted that none of the references, whether considered alone or in combination, discloses or suggests the present claimed invention nor renders it unpatentable.

It is respectfully requested that the claims be allowed and that the case be passed to issue.

Applicants' undersigned attorney may be reached in our New York office by telephone at (212) 218-2100. All correspondence should continue to be directed to our below listed address.

Respectfully submitted,



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